

## **Memorandum**

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TO: Cheryl King

FROM: John Crocker

DATE: March 15, 2007

SUBJECT: Service Availability of Fixed Route Bus and Rail Service

The purpose of this document is to highlight the level of service available on the regional local bus network. Every weekday, the main operators and various smaller operations place four rail, nine circulator<sup>1</sup>, thirty-two express bus, and one hundred thirty-nine local bus routes into service in the Atlanta region. While some of these routes will only run during the peak hours of travel, many of these routes will operate from the early morning until well past midnight, with the rail routes operating for over 21 hours every weekday. While the rail service and the express bus service frequently receive the most attention, this document examines the local bus services which provide the foundation of our regional transit network. Local bus trips make up almost 50% of all transit trips in the region.<sup>2</sup> In FY '06, over 77% of MARTA riders used both bus and rail and that 56% of riders accessed MARTA by walking to a bus stop.<sup>3</sup>

Since the local bus service does provide nearly 50% of all transit trips in the region, it is clearly the foundation of the entire regional transit network providing the unseen base upon which other services are provided. Therefore, any major fixed-guideway system expansion is going to have to be accompanied by improvements and enhancements to the local bus system in order for the new project to be utilized to the fullest extent possible. Any expansion of the fixed-guideway system in Atlanta, whether bus or rail based, has to consider and decide upon what kind of local bus network that new system will rest. Therefore, two important points need to be decided since they will have a direct impact on the cost estimate and project prioritization.

- 1. Is it more important to have high-frequency, long-span of service in major areas or to provide complete geographic coverage of the region?**
- 2. What is considered “High-frequency” by the region? Every 10 minutes, every 30 minutes, every hour?**

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<sup>1</sup> Excludes internal campus circulators at GSU, Georgia Tech, and Emory

<sup>2</sup> National Transit Database reports 70.2 million local bus trips in FY 2005 out of 143.8 total transit trips in FY 2005

<sup>3</sup> FY 2006 Quality of Service Study. Metropolitan Atlanta Rapid Transit Authority, Department of Research and Analysis. 2006. pg. 87.

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### Existing Quantity and Quality of Local Bus Services

To help frame the background discussion, two types of measures were taken from the Transit Capacity and Quality of Service Manual – 2<sup>nd</sup> Edition published by the Transportation Research Board – Span of Service and Service Availability. Data used to compile the information was taken directly from the most current available schedules for each route in February of 2007. Figure 1 shows the span of service for all local bus routes in our region.

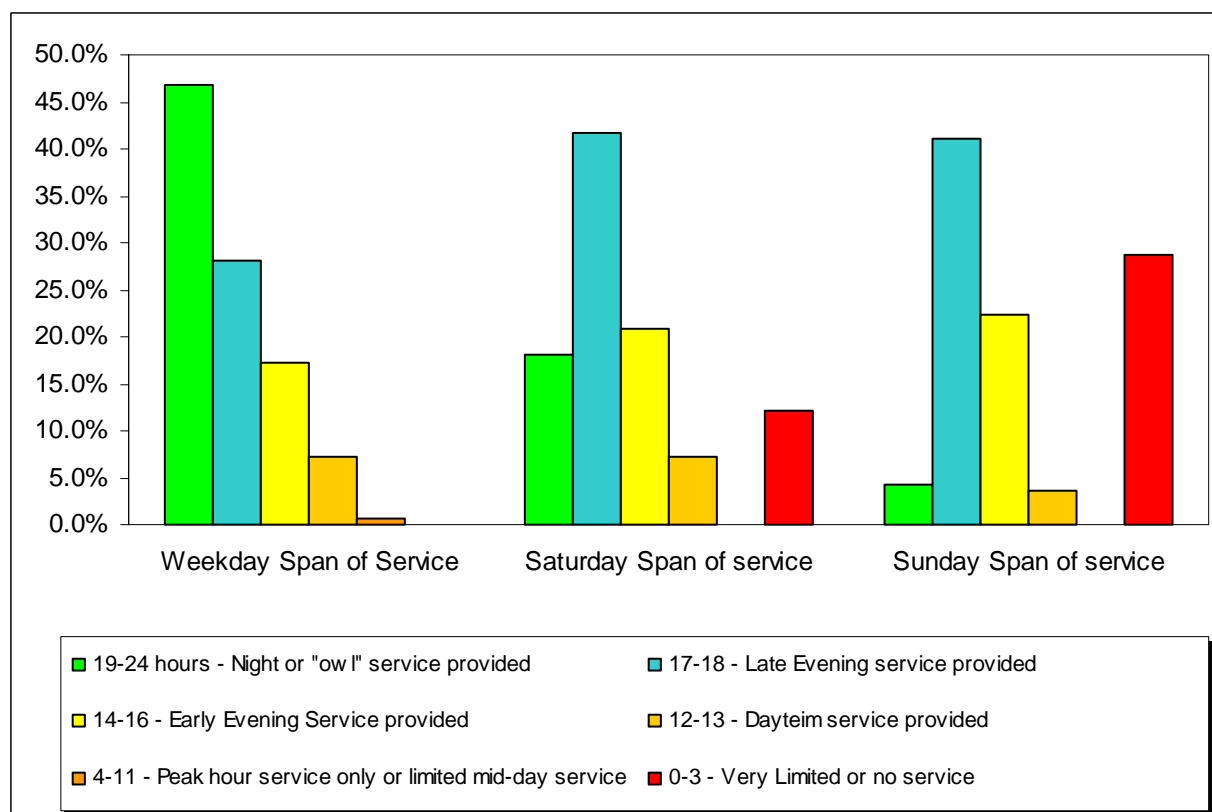


Figure1 – Span of Service (Service Quantity) for Local Bus Routes in the Atlanta Region

Figure 1 shows that most local bus routes in the region operate through at least the late evening of every weekday and Saturday, though over a quarter of all local service is not available on Sundays. In terms of the time of day that bus service is provided, Span of Service, in the region, our region is performing quite well. In otherwords, while we are providing a decent quantity of service, next we will examine the quality of that service, specifically with respect to the headway frequency.

Figure 2 shows the percentage of routes by headways for different periods during the weekday and overall headways for Saturday and Sunday.

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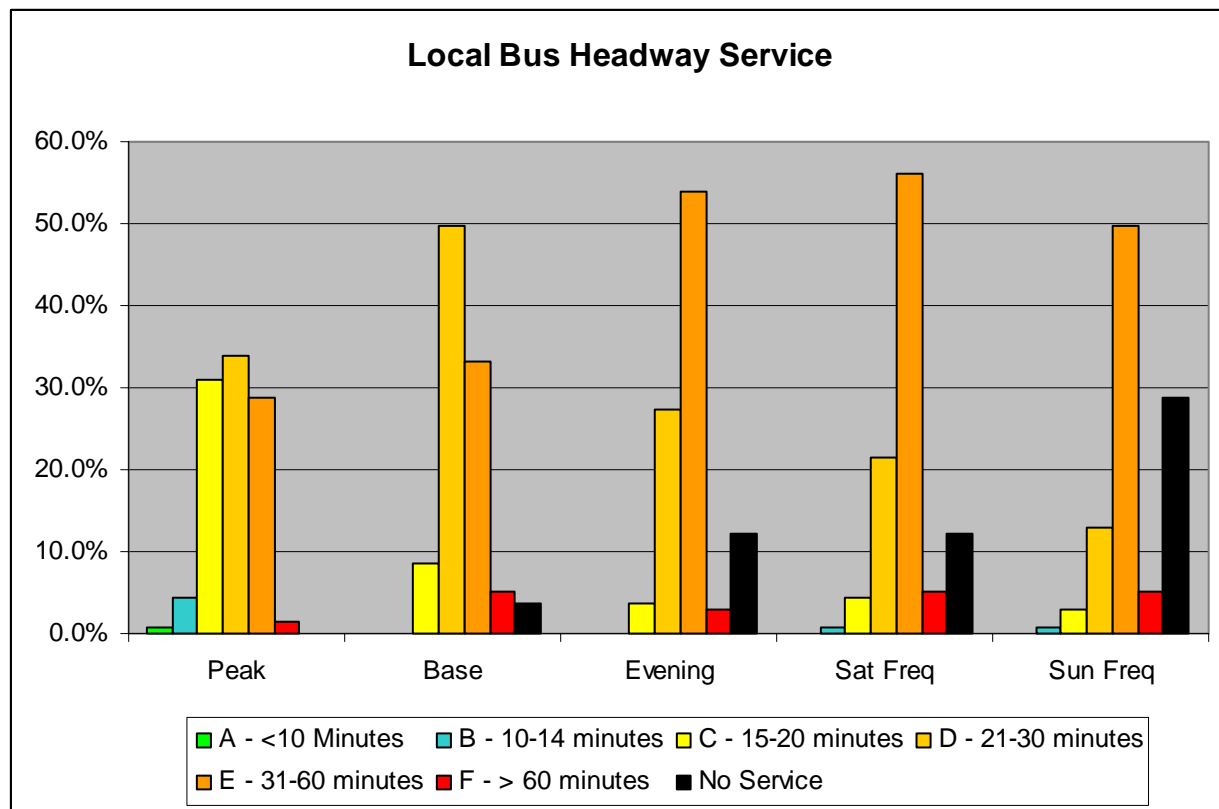


Figure 2 – Local Bus Route Headways or Service Quality

Figure 2 shows that only 5% of routes (7 routes total) in the entire regional local bus network even in the peak hour have headways of less than 15 minutes. No local bus route has headway of less than 15 minutes during the mid-day or off peak period. In fact, figure 2 reveals that during the evening (after 8 PM) and on Saturdays and Sundays, over 50% of the local bus network operates at headways of greater than 30 minutes. In total, outside of the peak period, there is no time when more than twelve (12) routes out of total of one-hundred and thirty nine (139) local bus routes, operate at headways of 20 minutes or less.

According to the Transit Capacity and Quality of Service Manual – 2<sup>nd</sup> Edition (TCQSM), this means that less than 9% of local bus routes in the entire Atlanta regional transit network operate at a Level of Service C or better. The TCQSM defines LOS C as “Maximum desirable time to wait if bus missed” and that at headways greater than 20 minutes “Service [is] unattractive to choice riders [usually riders with a car].” In more direct terms, the current local regional bus network provides nowhere near the convenient, frequent, and reliable transit service that is consistently demanded by the Atlanta region’s population through research such as the Harris Interactive poll conducted for the Metro Atlanta Chamber of Commerce, MARTA’s FY 2006 Quality of Service Study or the 2005 survey of express bus riders as part of the Atlanta Regional Commission’s Downtown/Midtown Bus Circulator Study.

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This also reinforces the point that one the greatest transit needs in the Atlanta region are improvements to the local bus service. This is not to say that the existing operators are not using their resources effectively. Two examples show how two agencies combine (or interline) routes on particular segments to increase service headways. CCT Routes 40 and 45 share the same route between the Marietta Transfer Center (MTC) and North Marietta Parkway via Marietta Square and both routes operate at 60 minute headways. However, through scheduling, CCT maintains 30-minute headways between the Marietta Transfer Center and North Marietta Parkway by scheduling Route 40 to leave the MTC on the hour and Route 45 to leave the MTC on the half-hour, effectively reducing the headways on the joint segment by one half or to 30 minutes instead of 60 minutes. MARTA routes 23 and 110 similarly share the same route along Peachtree Street between Lenox Station and Arts Center Station, and while both half half-hour headways during the mid-day and evening periods, by staggering their scheduling, MARTA is able to provide 15 minute headways along the joint segment. In other words, existing operators are trying to make the most effective use of the resources they have available.

In sum, the local bus network in the Atlanta region provides service throughout the day in many places where it operates, but the frequency of the service leaves much to be desired. This reflects a trade-off between operating a decent size network that offers service throughout the day, but only at a limited frequency due to operational funding constraints. This makes attracting new ridership problematic, particularly for choice riders, since the infrequent service is of limited utility to these particular riders and requires careful trip planning and understanding of schedules. *It is worth remembering that one of the main reasons for the success of the MARTA referendum in 1971 was the agreement for an immediate improvement in the local bus service which would provide the basis for good-will and support that allowed for the successful construction and operation of our current heavy rail system.*

Given the current status of the local bus network, it is clear that a consensus has been reached that bus service should be provided throughout the day within the region as is shown by the decent span of service of the local bus network. Additionally, research over the past few years have shown the Atlanta public desires a high frequency, reliable and convenient service. What is needed now is a decision on those two points raised earlier:

- 1. Is it more important to have high-frequency, long-span of service in major areas or to provide complete geographic coverage of the region?**
- 2. What is considered “high-frequency” by the region? Every 10 minutes, every 20 minutes, every 30 minutes, every hour?**